Introduction

1. A system of national accounts at constant prices is used to trace back to the prices of a reference year, called the base year, all the economic flows of another year, called the current year. This necessitates applying a price index to each operation and transactor so that variations in one item between the two years under consideration may be reflected in a "quantity" variation and a "price" variation. To do this there must be a complete system of price statistics which can fit totally within the framework of national accounts. The system of national accounts (SNA)[1/] is well suited to this since one of its purposes is to serve as a framework for integrating economic statistics.

2. The purpose of this document is to illustrate the use of price statistics in national accounts to calculate aggregates at constant prices. The first part deals with the basic data that must be collected on prices and corresponding indexes to establish the SNA tables at constant prices. The second part is devoted to consideration of the sectoral price deflator coefficients utilized by ECA in its national accounting work for most African countries which have not undertaken estimates at constant prices.

I. PRICE STATISTICS IN THE SNA

A. Overview of the price system

3. What is currently known as "accounting at constant prices" does not cover the entire SNA. It is limited to operations concerning commodities and operations that can be directly related to them. The monetary value of these transactions may be broken down, without creating any misunderstanding into the quantity element and the price element with units of measurement peculiar to them, whereas this is not true of the other operations. This monetary value synthesizes two separate realities, on the one hand, the number of physical units of the commodity exchanged during the transaction and, on the other, the price of each physical unit of the commodity, that is to say the value for which a unit of the same commodity may be exchanged.

4. Referring to SNA table 2.17 "A Symbolic representation of the system", the commodity flows relate to rows 3 to 11 and 24 and to columns 3 to 10, 14 to 19 and 24. (See Annex I). But in view of the problems and the inconsiderable involved in the difficulties collection of price statistics on sub-matrices, even just for the base year, and the urgency of collecting them, only tables 8 to 16 in annex 8.3 of A System of National Accounts need be prepared (See Annex II).

5. These tables relate to the flows which are the elements of the supply (production-import) and disposition of commodities (intermediate consumption, final consumption, gross fixed capital formation, increase in stocks and exports). They also relate to the elements of production and intermediate consumption by producers (industries, producers of government services and producers of private non-profit services). These flows may be presented either in a general commodity account or details can be given in an input-output table which has the advantage of showing the balance between the supply and disposition of each commodity at constant prices.

1/ A system of National Accounts (United Nations publication, Sales No. E.69.XVII.3).

6. Price statistics and the corresponding indices relating to these main flows viewed within the system therefore relate both to the source of the production commodity and industry) and to the disposition of the production (intermediate and final uses).

B. Unit of observation and classification for collecting price statistics

7. The unit of observation and classification for collecting price statistics is the "goods and services" or "commodity". All real data concerning prices will relate to commodities for it is impossible to study the price of a production activity. The index numbers calculated for industries relate to data about the characteristic commodities of each industry. In order to keep track of input-output relationships each piece of information collected must relate either to a commodity (goods and services), or to a sector of production (industry) or to a user (purchasing branch, final use). The recommended classifications are as follows:

- for commodities: the International Standard Classification of All Goods and Services (ICGS)
- for industries: the International Standard Industrial Classification of All Economic Activities (ISIC).
- for final uses: the classifications proposed in the SNA in tables 5.3, 5.4, 6.1 and 6.3.

C. Valuation of the various prices

8. The SNA provides for the recording of flows both at market prices and at approximate basic value. Market prices may be either those paid by the purchaser or those received by the seller; the difference is, of course, the trade margin and transport cost. Approximate basic values differ from market prices in that they exclude net indirect commodity taxes. Data regarding prices and indexes are based on either or both valuation methods. Thus the source of production is valued at the producer's value and at the approximate basic value, while the disposition of production is valued at the purchaser's value.

D. Index number used within the system

9. Once the price data are organized within the framework of a standard classification the index number for any set or transactions or economic agents can be estimated. The system has index numbers for prices relating to the main flows of the commodity account or of the input-output table.

10. Preparing these index numbers naturally implies choosing formulae for the index numbers and for the base period to be utilized. We will mention only the following two points:

(a) It is suggested that the Paasche formula be used for index numbers on prices. By dividing the current value indexes by the price indexes one obtains the implicit quantity index on Laspeyres' formula. There are a a number of advantages to using the Laspeyres' quantity index for statistics at constant prices:

- it is possible to make a direct comparison between values from one year to another;

- it is possible to aggregate these index numbers successively. Calculating the Laspeyres index numbers for prices and obtaining the implicit Paasch quantity index may lead to a certain lack of agreement, however, it is often minimal and can be tolerated 1/;

(b) It is important to choose a base period during which conditions are relatively normal and one not too distant from the current year, not only because commodity prices are liable to change with time but because the composition of flows also changes.

11. To prepare national accounts at constant prices it is necessary to determine a system of price statistics and index number for all flows. Table 1 outlines the structure of this system of price statistics and the elements needed in national accounts. There will be an appropriate price index for each aggregate that needs to be deflated. This is simple in theory but not in practice as will be seen from the second part of the document. The main reasons are as follows:

- there is insufficient data on prices,
- existing series are not suitable for national accounts since they are designed for other uses.

II. DEVELOPMENT OF SECTORAL DEFLATORS FOR CALCULATING NATIONAL ACCOUNTS AGGREGATES AT CONSTANT PRICES

12. In this part we will deal with the sectoral price deflator coefficients for national accounts which ECA has utilized. We will begin by presenting available data concerning price statistics, then continue with a brief survey on gross domestic product deflators by industry and deflators for the outlays charged to the gross domestic product. The last point will deal with a critical analysis of these deflators and possible ways of improving them.

A. Available price statistics

13. The data on price statistics available at the ECA secretariat come from national and international publications. They are principally:

1. Consumer price indexes. The vast majority of African countries collect consumer prices fairly regularly and prepare indices but the scope of these varies considerably from one country to another.

   (a) So far as geographical scope is concerned, consumer price indexes may:

   - cover the entire nation and distinguish between urban and rural sectors;
   - cover only urban centres;
   - cover only the capital (this is the usual case in African countries)

   (b) As for population categories the consumer price indexes relate to:

   - African households or foreign households or both;
   - low-income households or middle-income households.

1/ See in this connexion : System of National Accounts, Annex to chapter IV (United Nations publication, Sales No. E.69.XVII.3).

2. Producers' price indexes: Although producers' prices have an important place in the system of price statistics and are useful for many economic analyses, few countries as yet have collected these statistics and calculated the producers' price indexes. The scope of the index varies greatly from one country to another:

   (a) from the geographical standpoint, the index generally covers the entire country;

   (b) so far as classification is concerned two methods are used, namely, the classification by commodity and by major branch of activity (agriculture, mining, manufacturing, electricity and water).

3. Wholesale price index: A limited number of African countries have drawn up a general wholesale price index. In addition to the classification by commodity and branch of activity a few countries use classification by economic source (distinguishing between locally produced and imported goods) and classification by disposition (distinguishing between intermediate consumption, final consumption, gross capital formation and export) in preparing their wholesale price index. These indexes may cover the entire country or just the capital.

4. Foreign trade price indexes: All but a few African countries now periodically collect statistics on foreign trade. The price index and the index of the unit value of imported and exported commodities apply to the entire country since the data are obtained from customs declarations. Some countries make adjustments when commodity coverage is incomplete.

5. Price indexes for producers of government services: A number of countries have drawn up specific indexes to calculate the real production of government services or their value added. These include:

   - Indexes of profits from government services;
   - indexes of fictitious prices for the nation's current purchases,
   - special indexes for the salaries and wages of Government employees;
   - indexes of average civil service salaries.

14. An analysis of this list reveals that:

   (a) Available price indexes lack homogeneity, since the basis of the claculations varies widely from one country to another and at different times within the same country;

   (b) The most common data are those of the consumer price indexes and the foreign trade index;

   (c) Very few countries have wholesale price indexes, producers' price indexes and indexes for very specific uses.

According, ECA must find other alternative price indicators in order to offset the shortage of data.

B. **GDP Deflators**

15. The sectoral price deflator coefficients used for the period 1970-1977 are given in tables 2 and 3. With these it is possible to prepare gross domestic product (GDP) tables at constant prices:

(a) According to branch of activity (table 2): (i) Agriculture; (ii) mining, (iii) manufacturing and electricity, (iv) construction, (v) trade and transport and (vi) services;

(b) According to category of outlay (table 3): (i) private consumption, (ii) government consumption, (iii) gross capital formation, (iv) commodities exported (v) less commodities imported.

16. It should be pointed out that the number of sectors for which deflators have been selected is kept to a bare minimum due to the shortage of price data. Moreover, it should also be pointed out that our proposition is based on the assumption that changes in the series considered will be in line with charges in any other series related to it.

C. Critical analysis of deflators and possible ways of improving them

17. It is clear that there are a number of drawbacks to using these deflator coefficients. We will now consider them.

1. Agricultural GDP deflator. Because of the shortage of data on producers' and wholesale prices in the agricultural sector, ECA has utilized:

(a) the index of the unit value of agricultural exports
(b) the consumer foodstuff price index

Neither index is satisfactory since:

- the former does not take into account changes in food prices which do not greatly influence export trade but have a great influence on domestic consumption;
- the latter, which reflects changes in food prices in the capital, is likely to inflate prices of agricultural commodities in the country as a whole.

In view of the importance of the agricultural sector in African economies great priority must be given to collecting data on producers' prices or wholesale prices of agricultural commodities.[1/]

2. Manufacturing sector GDI deflator: Owing to insufficient data the index of the unit value of imports is used as a deflator. This indicator is the least appropriate because of:

- the great difference in the make-up of locally manufactured and imported goods;
- the structure of costs and price movements. Moreover, the index of the unit value of imports is normally calculated on the c.i.f. value of imports which does not include import duties and charges.

1/ See the document entitled "Agricultural producer prices" (E/CN.14/NAC/67).

The best solution would be to collect statistics on producers' prices or those on wholesale prices of locally manufactured goods on a nation wide basis.

3. Consumer price indexes: This index is used to deflate a large number of national accounts aggregates such as the value added of the trade, transport and service sectors and also private and public consumption outlays (see tables 2 and 3).

It is not satisfactory for in most African countries this index refers only to the capital and, in some cases, to only one category of the population and does not cover the entire national.

When this index seems to show too sharp a price increase an average weighted index is calculated from the agricultural GDP deflator index, the consumer price index and the index for the unit value of imports.

Appropriate price indexes should be found for these various sectors, for example, an element of the indexes of existing prices or specially constructed price indexes as indicated below:

Trade:	General index or elements of wholsale and retail price indexes;
Transport and Communications	Element of the consumer price index or specially constructed price indexes, for example, the passenger/mile price index, national or international freight rates;
Government	Index of wages and salaries of government employees both civilian and military;
Public consumption	Index of wages and salaries of government employees, civilian and military, combined with specially prepared price indexes for commodities bought.

4. Index of the unit value of exports and imports

(a) The index of the unit value of goods and services exported and imported is used to deflate exports and imports of goods and services. This presupposes that changes in the prices of the goods and services considered are sufficiently interrelated or that the service element is small enough to be ignored.

These assumptions may not apply to exports and imports to transport, direct purchases by persons resident abroad or by non residents in the country under consideration and to other elements. In any event, it will be necessary to prepare price indexes weighted on the current period in order to adjust the series of current values. For example, in the case of transport services, one must use weighted averages of freight rates for given types of marchandise and routes. In the case of expenditures by persons resident abroad it is possible to use price indexes calculated on the basis of weighted variations in exchange rates and appropriate consumer price indexes in the countries with the largest numbers of such resident.

(b) Still another problem is the rather long time-lag (one or two years) before one can obtain national data on trade by commodity on which to calculate these indexes. The following solution has been adopted; it seems to be the best until such time as national data become available:

(i) For African countries whose exports consist mainly of one or more commodities such as coffee, cocoa, cotton, crude petroleum, copper, iron, phosphate, etc, world export indexes calculated and published by the United Nations Statistical Office have been taken as the basis for projecting series or indexes of the unit value of exports of each nation.

(ii) The average unit value of exports of manufactured goods has been calculated for six industrialized countries (United States of America, France, Federal Republic of Germany, Italy, United Kingdom and Japan) so as to project series of indexes of the national unit value of exports.

18. In view of these remarks and the sources of data on price statistics of African countries, it is clear that the deflators given in tables 2 and 3 are temporary and will be improved as additional data become available.

III. CONCLUSION

19. The preparation of these sectoral price deflator coefficients has illustrated the existing inadequacies of price statistics in African countries. It is essential to improve existing data and the collection of new data under the SNA system[1] in order to estimate national accounts elements at constnat prices so that they may become an effective tool in economic analysis and planning.

1/ Guidelines on Principles of a System of Price and Quantity Statistics (United Nations Publication, Sales No. E.77. XVII.9).

Table . Structure of the price statistics system

I. Source of production (producers' values and approximate base values)		
	PRODUCTION	
	Commodity	Industry
1. Agriculture, hunting, forestry and fishing		
2. Mining and quarrying	Basic data and indexes prepared at several levels of synthesis on the lines of ICGS	Indexes prepared at several levels of synthesis of ISIC
3. Manufacturing		
4. Electricity, gas and water		
5. Construction		
6. Trade, restaurants and hotels		
7. Transports, storage and communications		
8. Financing, insurance etc.		
9. Services		

II. Dispostion of production (Purchasers' values)	
1. Intermediate consumption by commodity and industry	Basic data and indexes prepared at several levels of synthesis along the lines of ICGS, ISIC and SNA
2. Final household consumption by commodity, type of outlay and purpose	
3. Final government consumption by commodity and purpose	
4. Final consumption of private non-profit institutions by commodity and purpose	
5. Gross fixed capital formation by type of capital goods and industry	
6. Increases in stock by commodity and industry holding them	
7. Exports by commodity	
8. Minus imports by commodity.	

Table 2. Deflator coefficients by branch of activity

Branch of activity	ECA deflator
1. Agriculture	Either (1) the index of the unit value of agricultural exports or (2) the consumer foodstuff price index Note (1) The index of the unit value of exports correctly prepared and excluding mineral exports, could be used in some cases as rough indicator.
2. Mining and quarrying	Price index based on the country's main exports. A distinction should be drawn between the following: (1) Petroleum-exporting countries: the index will be based on the prices of crude petroleum posted in the United Nations Statistical Yearbook. (2) Copper-exporting countries: the index is the average of copper price indexes in the United Kingdom and the United States of America; (3) Iron-exporting countries: the index is the average of the Swedish and US price indexes for iron ore
3. Manufacturing and Electricity	Index of the unit value of imports excluding imports of crude petroleum and cereals
4. Construction	Simple arithmetic mean of deflator coefficients for prices of manufactured goods and of the consumer price index
5. Trade and transport	Consumer price index
6. Miscellaneous services (including public services).	Consumer price index

Table 3: Deflator coefficients by type of outlay

Type of outlay	ECA deflator
1. Private consumption	Consumer price index
2. Government consumption	Consumer price index
3. Gross capital formation	Either (1) index of the unit value of imports in section 7 of SITC (machines and transport equipment of the importing country or (2) a simple arithmetic average of the indexes of the unit value of exports in section 7 of SITC, for the main developed exporting countries (Federal Republic of Germany, Japan, France, United Kingdom, Italy, United States of America).
4. Commodity exports	Index of unit value of exports
5. Less commodity imports	Index of unit value of imports

Annex I. Commodity flows in general framework of SNA

Table 1. Flows of goods and services in the SNA general framework

				Commodities		Activities			Final consumption			Institutional sector of receipt	Increase in stocks		Fixed capital formation			Exports
				Basic value	Commodity taxes net	Industries	Producers of government services	Producers of private n.p. services and domestic services	Household goods and services	Government purposes	Purposes of private n.p. bodies		Industries	Producers of government services	Industries	Producers of government services	Producers of private n.p. services	
				3	4	5	6	7	8	9	10	14	15	16	17	18	19	24
Production	Commodities	Commodities, basic value	3			$T_{3.5}$	$T_{3.6}$	$T_{3.7}$	$T_{3.8}$				$T_{3.15}$	$T_{3.16}$	$T_{3.17}$	$T_{3.18}$	$T_{3.19}$	$T_{3.24}$
		Commodity taxes, net	4			$T_{4.5}$	$T_{4.6}$	$T_{4.7}$	$T_{4.8}$				$T_{4.15}$		$T_{4.17}$	$T_{4.18}$	$T_{4.19}$	$T_{4.24}$
	Activities	Industries	5	$T_{5.3}$	$T_{5.4}$													
		Producers of government services	6	$T_{6.3}$					$T_{6.8}$	$T_{6.9}$								
		Private services: domestic service and producers of private n.p. services	7	$T_{7.3}$					$T_{7.8}$		$T_{7.10}$							
Consumption expenditure	Household goods and services		8									$T_{8.14}$						$T_{8.24}$
	Government purposes		9									$T_{9.14}$						
	Purposes of private n.p. bodies		10									$T_{10.14}$						
Value added			11	$T_{11.3}$	$T_{11.4}$	$T_{11.5}$	$T_{11.6}$	$T_{11.7}$										
Imports			24	$T_{24.3}$			$T_{24.6}$		$T_{24.8}$									

Table 2. Summary of contents of submatrices

Submatrices	Contents
$T_{3.5}$	The inputs of commodities, reckoned at basic values, into the productive activity of industries.
$T_{3.6}$	The inputs of commodities, reckoned at basic values, into the productive activity of the producers of government services.
$T_{3.7}$	The inputs of commodities, reckoned at basic values, into the productive activity of producers of private non-profit services to households. It is generally assumed that these inputs do not arise in the case of domestic services rendered on an individual basis (row and column 20 of table 2.1).
$T_{3.8}$	Commodities, reckoned at basic values, entering into the consumption expenditure in the domestic market of all households, whether resident or not.
$T_{3.15}$	Additions to the stocks of commodities reckoned at basic values, held by industries.
$T_{3.16}$	Additions to the stocks of commodities, reckoned at basic values, held by the producers of government services.
$T_{3.17}$	Commodities, reckoned at basic values, entering into the gross fixed capital formation of industries.
$T_{3.18}$	Commodities, reckoned at basic values, entering into the gross fixed capital formation of the producers of government services.
$T_{3.19}$	Commodities, reckoned at basic values, entering into the gross fixed capital formation of the producers of private non-profit services to households.
$T_{3.24}$	Exports of commodities reckoned at basic values.
$T_{4.5}$	Commodity taxes, net, on the commodity inputs into the productive activity of industries. The sum $T_{3.5} + T_{4.5}$ represents these commodity inputs reckoned at producers' values.
$T_{4.6}$	Commodity taxes, net, on the commodity inputs into the productive activity of producers of government services.
$T_{4.7}$	Commodity taxes, net, on the commodity inputs of producers of private non-profit services to households.
$T_{4.8}$	Commodity taxes, net, on commodities entering into household consumption expenditure in the domestic market.
$T_{4.15}$	Commodity taxes, net, on the commodities entering into the stocks of industries.
$T_{4.17}$	Commodity taxes, net, on commodities entering into the gross fixed capital formation of industries.
$T_{4.18}$	Commodity taxes, net, on the commodities entering into the capital formation of producers of government services.
$T_{4.19}$	Commodity taxes, net, on the commodities entering into the capital formation of producers of private non-profit services to households.
$T_{4.24}$	Commodity taxes, net, on exports of commodities.
$T_{5.3}$	Commodity outputs, reckoned at basic values, of industries.
$T_{5.4}$	Commodity taxes, net, on the outputs of industries. The sum $T_{5.3} + T_{5.4}$ represents the commodity outputs of industries reckoned at producers' values.
$T_{6.3}$	Commodity outputs, reckoned at basic values, of the producers of government services.
$T_{6.8}$	Government services entering into household consumption expenditure in the domestic market.
$T_{6.9}$	Services produced for own use by government services.

Table 2. Summary of contents of submatrices (cont'd)

Sub-matrices	Contents
$T_{7.3}$	Commodity outputs, reckoned at basic values, of producers of private non-profit services to households.
$T_{7.8}$	Domestic services and private non-profit services entering into household consumption expenditure in the domestic market.
$T_{7.10}$	Services produced for own use by private non-profit services.
$T_{8.14}$	Final consumption expenditure on goods and services in the domestic market by resident households.
$T_{8.24}$	Final consumption expenditure on goods and services in the domestic market by non-resident households.
$T_{9.14}$	Final consumption expenditure by general government.
$T_{10.14}$	Final consumption expenditure by private non-profit institutions.
$T_{11.3}$	Protective import duties.
$T_{11.4}$	Other import duties. In the standard accounts and tables of Chapter VIII, this entery includes all import duties and $T_{11.3}$ is suppressed.
$T_{11.5}$	Values added, that is compensations of employees, operating surpluses, provisions for the consumption of fixed capital and indirect taxes, net, in the productive activity of industries.
$T_{11.6}$	Values added in the productive activity of the producers of government services.
$T_{11.7}$	Value added in the productive activity of domestic services and the producers of private non-profit services to households.
$T_{11.23}$	The negative of charges for the consumption of fixed capital.
$T_{12.11}$	Compensation of employees and operating surpluses classified by institutional sectors of origin.
$T_{24.3}$	Imports of commodities reckoned at c.i.f. values.
$T_{24.6}$	Direct expenditure abroad on goods and services by the producers of government services.
$T_{24.8}$	Final consumption expenditure abroad by resident households.

Annex II. SNA Tables at Constant Prices

Table 8. Constant-price value and price indexes of the gross domestic product, by type of expenditure

a. Value in Constant Prices

Item	Flow		
1.	2.2.20	Government final consumption expenditure	
2.	2.2.30	Private final consumption expenditure	
3.	4.2.5	Increase in stocks	
4.	4.2.6	Gross fixed capital formation	
5.		Final consumption and gross capital formation	
6.	1.2.10	Exports of goods and services	
7.	1.1.10	Less imports of goods and services	
8.	1.3.0	Gross domestic product at purchasers' values	

b. Correlative Price Index Numbers

Item	Flow		
9.	2.2.20	Government final consumption expenditure	
10.	2.2.30	Private final consumption expenditure	
11.	4.2.6	Gross fixed capital formation	
12.		Final consumption and gross capital formation	
13.	1.2.10	Exports of goods and services	
14.	1.1.10	Imports of goods and services	
15.	1.3.0	Gross domestic product at purchasers' values	

Table 9. Gross domestic product at constant prices, by kind of economic activity

Kind of economic activity			Gross domestic product (Producers' values)	Gross domestic product (Basic values [1])
Condensed list (ISIC division and major division)	More detailed list (ISIC major group of division)	Flow	1.3.0	1.3.0-1.3.6
(1a)	(1b)		(2)	(3)
a. Industries				
1. Agriculture, hunting, forestry and fishing				
11. Agriculture and hunting	11			
12. Forestry and logging	12			
13. Fishing	130			
2. Mining and quarrying	210; 220; 230; 290			
3. Manufacturing				
31. Food, beverages and tobacco	311-312; 313; 314			
32. Textiles, wearing apparel and leather industries	321; 322; 323; 324			
33. Wood and wood products including furniture	331; 332			
34. Paper and paper products, printing and publishing	341; 342			
35. Chemicals and chemical, petroleum, coal, rubber and plastic products	351; 352; 353; 354; 355; 356			
36. Non-metallic mineral products, except petroleum and coal	361; 362; 369			
37. Basic metal industries	371; 372			
38. Fabricated metal products, machinery and equipment	381; 382; 383; 384; 385			
39. Other manufacturing industries	390			
4. Electricity, gas and water	410; 420			
5. Construction	500			
6. Wholesale and retail trade and restaurants and hotels				
61-62. Wholesale and retail trade	61-62			
63. Restaurants and hotels	631; 632			
7. Transport, storage and communication				
71. Transport and storage	71			
72. Communication	720			
8. Finance, insurance, real estate and business services	81 and 82; 83			
9. Community, social and personal services	93; 93; 94; 951 and 952 953 and 959			
Non-allocable [2]				
Sub-total				
b. Producers of Government Services				
1. Agriculture and hunting, forestry and fishing	110; 121; 130			
4. Electricity, gas and water	Perhaps 420. Water works and supply			
7. Transport, storage and communication	71. Transport only			
9. Services				
91. Public administration and defence	910			
92. Sanitary and similar services	920			
93. Social, recreational and related community services	93-94 and perhaps 81. Financial institutions			
Non-allocable [2]				
Sub-total				
c. Producers of Private Non-Profit Services to Households				
93-94. Social, recreational and related community services: producers of private non-profit services to households	93-94			
95. Domestic services of households	953			
d. Totals				
Total				
Import duties				
Total				

[1] Approximate or true basic values or approximate or true factor values, depending on the relative urgency of requirements and feasibilities.

[2] In addition to the sum of the entries above, the sub-total includes the negative of the intermediate consumption charged to the nominal industry in respect of imputed service charge of banks and similar financial intermediaries.

Table 10. Employment by kind of economic activity

Kind of economic activity		Average number of persons employed during year		Man-hours worked by employees
Condensed list	More detailed list	All persons	Employees	
(1a)	(1b)	(2)	(3)	(4)
a. Industries				
The categories of the condensed and detailed list are the same as the categories shown in Table 9				
Sub-total				
b. Producers of Government Services				
The categories of the condensed and detailed list are the same as the categories shown in Table 9				
Sub-total				
c. Producers of Private Non-profit Services to Households				
The categories of the condensed and detailed list are the same as the categories shown in Table 9				
d. Total				

Table 11. Supply and disposition of commodities at constant prices

Source of supply or disposition				Flow	Characteristic products of specified kind of activity of industries 1/ (basic values) 11 12 13 210 . . . 81-82	Commodity taxes net 1.3.6
Supply of commodities	Industries where produced, according to kind of activity	11. Agriculture and hunting 12. Forestry and logging 13. Fishing 210. Coal mining . . . 311-312. Food manufacturing (More detailed list of Table 2 for ISIC major divisions 2 through 5) 61-62. Wholesale and retail trade (Condensed list of Table 2 for major divisions 6 through 8 except major groups 631-632 and excluding division 81. 951. Repair services n.e.c. and and 952. laundries		1.1.1		
	Producers of government services			1.1.2		
	Producers of private non-profit services to households			1.1.3		
	Imported	Import duties		1.3.4.1		
		c.i.f. value	Competitive			
			Complementary			
Disposition of supply of commodities	Intermediate consumption, industries 2/			1.2.1		
	Intermediate consumption, producers of government services			1.2.2[a]		
	Intermediate consumption, producers of private non-profit services to households			1.2.3		
	Final consumption in the domestic market, households			2.2.4[a]		
	Increase in stocks			4.2.5		
	Gross fixed capital formation, industries			4.2.51		
	Gross fixed capital formation, producers of government services			4.2.511		
	Gross fixed capital formation, producers of private non-profit services to households			4.2.5111		
	Exports			1.2.11		

1/ Kind of activity as in the rows for the supply of commodities from industries.

2/ Includes the intermediate consumption of the nominal unit to which the imputed service charge of banks and similar financial institutions is assigned.

Table 12. Gross output and Input of Industries at constant prices

Gross output and input				Flow	Kind of activity of industries 1/				
					11	12	13	210	. . . . .
Gross output of industries			Gross output (Basic values)	1.1.1					
			Commodity taxes, net	1.3.6					
Gross input of industries	Intermediate consumption 2/	Characteristic products of specified kind of activity of industries (Basic values)	11. Agriculture and hunting 12. Forestry and logging 13. Fishing 210. Coal mining . . 311-312. Food manufacturing (More detailed list of Table 9 for ISIC major divisions 2 through 5) 61-62. Wholesale and retail trade . . . (Condensed list of Table 9 for major divisions 6 through 9 ex pt 951-952 and excluding divisions 91) 951 and Repair services n.e.c. and 952. Laundries	1.2.1					
		Commodity taxes, net		1.3.6					
	Domestic factor incomes			1.3.1+ 1.3.2					
	Consumption of fixed capital			1.3.3					
	Indirect taxes, net			1.3.4- 1.3.5					

1/ Kind of activity as in the rows for the intermediate consumption of characteristic products of specified kind of activity of industries.

2/ Includes the intermediate consumption of the nominal industry to which the imputed service charge of banks and financial institutions is assigned.

Table 13. Government final consumption expenditure at constant prices, by purpose

Purpose of outlays	Final consumption expenditure	Inter c[illegible]
	Flow: 2.2.20	1.2.2
(1)	(2)	(3)
1. General public services		
2. Defence		
3-7. Social, recreational and related community services		
of which:		
3. Education		
4. Health		
5. Social security and welfare services		
8. Economic services		
Total[1/]		

1/ In addition to the categories listed, the total includes the outlays in respect of category 9, "other purposes", which cannot be allocated to any of the purpose categories listed above.

Table 14. Final consumption expenditure at constant prices of non-profit bodies serving households, by purpose

Purpose of outlays	Final consumption expenditure	Intermediate consumption
	Flow: 2.2.21	1.2.1
(1)	(2)	(3)
1. Research and scientific institutes		
2. Education		
3. Medical and other health services		
4. Welfare services		
5-8. Other purposes		
Total		

Table 15. Composition of final consumption expenditure of households at constant prices

a. By Type of Expenditure

Item	Flow		
1.	2.2.4*	Commodities purchased	
2.		Durable goods	
3.		Semi-durable goods	
4.		Non-durable goods	
5.		Services	
6.	2.2.4**	Other goods and services pruchased	
7.	2.2.4	Final consumption in the domestic market	
8.	2.1.12.1	Direct purchases abroad by resident households	
9.	-2.2.12.1	Less Purchases in the domestic market by non-resident households	
10.	2.2.32	Final consumption expenditure (Items 7+8-9)	

b. Final Consumption in the Domestic Market by Object

Object		
Condensed list	More detailed list	
(1a)	(1b)	
1. Food, beverages and tobacco	1.1; 1.2; 1.3; 1.4	
2. Clothing and footwear	2.1; 2.2	
3. Gross rent, fuel and power	3.1; 3.2	
4. Furniture, furnishings and household equipment and operation	4.1; 4.2; 4.3; 4.4; 4.5 and 4.6	
5. Medical care and health expenses	5.1; 5.2; 5.3; 5.4 and 5.5	
6. Transport and communication	6.1; 6.2; 6.3; 6.4	
7. Recreation, entertainment, education and cultural services	7.1; 7.2; 7.3; 7.4	
8. Other goods and services	8.1; 8.2; 8.3; 8.4; 8.5 and 8.6	
Final consumption in the domestic market (Flow 2.2.4)		

Table 16. Composition of gross domestic capital formation at constant prices

a. By Type of Capital Goods	
1. Residential building 2+3. Non-residential building and other construction except land improvement 5. Transport equipment 6. Machinery and equipment 4+7. Land improvement and plantation and orchard development and breeding stock, draught animals, etc.	
Grosss fixed capital formation (Flow 4.2.6)	
1. Goods producing industries 1.1 Materials and supplies 1.2 Work-in-progress 1.3 Livestock except breeding stock, dairy cattle and the like 1.4 Finished goods 2. Wholesale and retail trade 3. Other industries 4. Government services	
Increase in stocks (Flow 4.2.5)	
Gross capital formation (Flows 4.2.6 + 4.2.5)	

b. By Kind of Economic Activity

Kind of economic activity		Gross fixed capital formation
Condensed list (ISIC divisions and major divisions)	More detailed list (ISIC major groups and divisions)	Flow 4.2.6
(1a)	(1b)	(2)
a. Industries		
1. Agriculture, hunting, forestry and fishing	11; 12; 13	
2. Mining and quarrying	210; 220; 230; 290	
3. Manufacturing		
31. Food, beverages and tobacco	311-312; 313; 314	
32. Textiles, wearing apparel and leather industries	321; 322; 323; 324	
33. Wood and wood products, including furniture	331; 332	

Table 16. Composition of gross domestic capital formation at constant prices (cont'd)

b. (Cont'd). By Kind of Economic Activity

Kind of economic activity		Gross fixed capital formation
Condensed list (ISIC divisions and major divisions)	More detailed list (ISIC major groups and divisions)	
	Flow	4.2.6
(1a)	(1b)	(2)
34. Paper and paper products, printing and publishing	341; 342	
35. Chemicals and chemical, petroleum, coal, rubber and plastic products	351; 352; 353; 354; 355; 356	
36. Non-metallic mineral products, except petroleum and coal	361, 362, 369	
37. Basic metal industries	371; 372	
38. Fabricated metal products, machinery and equipment	381; 382; 383; 384; 385	
39. Other manufacturing industries	390	
4. Electricity, gas and water		
41. Electricity, gas and steam	410	
42. Water works and supply	420	
5. Construction	500	
6. Wholesale and retail trade and restaurants and hotels	61-62, 63	
7. Transport, storage and communication		
71. Transport and storage	711; 712; 713; 719	
72. Communication	720	
8. Finance, insurance, real estate and business services	81 and 82; 83	
9. Community, social and personal services	92, 93 and 94; 95	
Sub-total		

Table 16. Composition of gross domestic capital formation at constant prices (cont'd)

Kind of Economic activity		
Condensed list (ISIC divisions and major divisions)	More detailed list (ISIC major groups and divisions	Gross fixed capital formation
	Flow	4.2.6
(1a)	(1b)	(2)
b. Producers of Government Services		
1. Agriculture, hunting, forestry and fishing	1	
4. Electricity, gas and water	Perhaps 420. Water works and supply	
7. Transport, storage and communication	71. Transport only	
8-9. Services		
91. Public administration and defence	91	
92. Sanitary and similar services	92	
93-94 and Social, recreational and related community services	93 and 94; perhaps 81. Financial institutions	
Sub-total		
c. Producers of Private Non-Profit Services to Households		
93-94. Social, recreational and related community services	93 and 94	
d. Total		